R E P O R T R E S U M E S

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INITIAL TEACHING ALPHABET (I.T.A.) FOR INSTRUCTION OF READING DISABILITY CASES.

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REPORT NUMBER CRP-S-145 PUB DATE 64
EDRS PRICE MF-$0.09 HC-$0.88 22P.

DESCRIPTORS- *REMEDIAL READING CLINICS, *READING MATERIALS, *TEACHING METHODS, METHODS RESEARCH, READING FAILURE, READING INSTRUCTION, READING DEVELOPMENT, COMPARATIVE ANALYSIS, *COMPARATIVE EDUCATION, FOREIGN COUNTRIES, *ALPHABET, ORTHOGRAPHIC SYMBOLS, INSTRUCTIONAL MATERIALS, ITA, SAN JOSE, CALIFORNIA, ENGLAND

BRITISH EXPERIMENTAL USAGE OF INITIAL TEACHING ALPHABET (ITA) MATERIALS AND PROCEDURES FOR INSTRUCTION OF READING DISABILITY CASES WAS STUDIED TO DETERMINE IF ITA METHODS AND MATERIALS COULD BE SIMILARLY USED IN A SAN JOSE READING CLINIC. THE INVESTIGATOR MADE OBSERVATIONS IN ENGLAND OF QUALITY, FORMAT, CONCEPTS, AND USE OF LANGUAGE IN THE ITA MATERIAL. FINDINGS WERE DISCUSSED UNDER NINE CATEGORIES--(1) ITA MATERIALS, (2) PUPIL SELECTION FOR ITA REMEDIAL WORK, (3) REMEDIAL TECHNIQUES WITH ITA, (4) INDIVIDUAL OR GROUP METHODS FOR USE WITH ITA, (5) PHONETIC OR WHOLE WORD APPROACHES, (6) DIAGNOSIS IN ITA REMEDIATION, (7) THE USE OF SUPPLEMENTARY MATERIALS, (8) EXTENT OF TEACHER TRAINING, AND (9) ITA AND THE READING CLINIC. GENERALLY ITA HAS HAD BENEFICIAL EFFECTS WITH CHILDREN WHEN A HISTORY OF READING FAILURE HAD EXISTED. IT WAS CONCLUDED THAT ITA MATERIALS AVAILABLE IN ENGLAND COULD BE USED IN THE UNITED STATES WITH MINOR MODIFICATIONS IN ISOLATED BOOKS. HOWEVER, ADDITIONAL MATERIALS WHICH ARE NOT YET AVAILABLE IN ENGLAND INCLUDE HIGH INTEREST, TRANSITIONAL, SKILL BUILDING, AND SUPPLEMENTARY MATERIALS, AS WELL AS ITA READING MANUALS. (JM)

ED003854

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INITIAL TEACHING ALPHABET (i.t.a.) FOR INSTRUCTION OF READING DISABILITY CASES

Cooperative Research Project No. S-145

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1964

The research reported herein was supported by the Cooperative Research Program of the Office of Education, U.S. Department of Health, Education, and Welfare.

Table of Contents

	Page
Problem	1
Objectives	1
Related Literature	2
Procedures	4
Findings	5
Initial Teaching Alphabet Materials	5
Selection of Pupils for i.t.a. Remediation	8
Remedial Techniques with i.t.a.	9
Individual or Group Methods for i.t.a. Remediation	11
Phonetic or Whole Word Approaches	11
The Function of Diagnosis in i.t.a. Remediation	13
Use of Supplementary Materials	13
Extent of Teacher Training	14
i.t.a. and the San Jose State Reading Clinic	15
Conclusions and Implications	15
i.t.a. Materials	15
Selection of Pupils for Remediation	16
Remedial Techniques with i.t.a.	16
Phonetic or Whole Word Approaches	16
The Function of Diagnosis in i.t.a. Remediation	17
Use of Supplementary Materials	17
Extent of Teacher Training	17
Bibliography	19

Problem

The Initial Teaching Alphabet (i.t.a.) devised by Sir James Pitman in England has in the last few years gained marked attention from educators throughout the world. The current experiment in Britain has produced interesting and provocative research results which may portend a new trend for the teaching of beginning reading in the United States. Reaction to the English experiment has been enthusiastic and a number of experiments are underway in Bethlehem, Pa., Chicago, Ill., Ventnor, N.J., and Cleveland, Ohio. These studies are concerned with the use of i.t.a. in beginning reading instruction.

Another and no less important area receiving attention in England is the use of i.t.a. with pupils who have not experienced success through instruction in the traditional orthography. Experimentation thus far, as reported informally by those in England most directly involved, indicates that very significant progress results from application of i.t.a. procedures to reading disability cases. Data based on much of this experimentation is lacking and is not to be found in the United States. Nothing has been published that would be helpful for those engaged in clinical work with remedial cases in this country. This lack of crucial data may be overcome by direct investigation of i.t.a. remedial methods and materials in England.

Any approach is worthy of investigation that holds great promise for that significant section of the school population which experiences reading difficulty. This problem was investigated with this end in view.

Objectives

A. An investigation in England of procedures which incorporate the Initial Teaching Alphabet (i.t.a.) for instruction of reading disability cases

B. An investigation in England of materials which incorporate the Initial Teaching Alphabet for instruction of reading disability cases

C. An investigation of the feasibility of utilizing Initial Teaching Alphabet materials used for instruction of reading disability cases in England at the San Jose State College Reading Clinic

D. An investigation of the feasibility of utilizing Initial Teaching Alphabet methods used for instruction of reading disability cases in England at the San Jose State College Reading Clinic

Related Literature

Sir James Pitman and others who have devised special writing systems for beginners assume that the complexities and inconsistencies in traditional orthography are an important cause of failure in beginning reading (9). They propose their more simple and more reliable orthographies to make it easier for children to learn to read. In the Initial Teaching Alphabet (i.t.a.) Pitman appears to have simplified the learning task in three ways:

1. Fewer characters need be learned. Capitalization is achieved in i.t.a. by making a larger lower case shape in place of a quite different shape as is the case in traditional orthography (3, 6).

2. Fewer whole word representations need be learned. Since only one form of a letter is used, each whole word printed in i.t.a. has only one single printed form (5, 6).

3. Fewer phonemic print-signals need be learned. The number of alternative spellings for English phonemes is greatly reduced in i.t.a. (5, 6).

Pitman also seems to have made i.t.a. a more systematic print code for English phonemes than traditional orthography. Recent research by Durrell (7) in the United States and Elkonin (8) in Russia indicates that pre-reading training in the development of the abstract concept of the phoneme produces very significant improvements in beginning reading and that we should not lose sight of the fact that both English and Russian are written in alphabetic codes. Pitman's i.t.a. appears to be less complex than traditional orthography in three respects:

1. Less ambiguity of spelling is permitted. Children are not (for example) faced with the ambiguity produced by the erratic use of the letter 'o'. Different phonemes are indicated by different print-signals (1, 5, 6).

2. Ambiguity of direction of reading is removed. In i.t.a. the directional rule (i.e. left to right) is maintained consistently. Phonemes are signalled in consecutive order so that the ambiguity of direction in the traditional orthography code produced by spelling patterns in which the second phoneme in the word is indicated by the second and fourth letters is removed (1, 5, 6).

3. The complexity of the print-code for phonemes is reduced. In i.t.a. beginners do not have to learn that 'c' in cat and 'h' in hat represent quite a different phoneme at the beginning of chat. In i.t.a. that different phoneme is provided with its own different letter (5).

Research with over 2000 four and five year olds from 75 primary schools in England is attempting to answer the following questions:

1. Is the traditional orthography of English an important source of difficulty in beginning reading?

2. If children learn to read more rapidly and with greater success in the simplified and regularized i.t.a. reading system, can they transfer their superior reading skill from i.t.a. to the traditional orthography?

3. Is this two-stage process worthwhile in the final outcome? Are reading attainments in traditional orthography superior to what they would have been without the intervention of the i.t.a. system? (2, 5)

Initial results of experimental work show clearly that:

1. experimental i.t.a. pupils are significantly in advance of children using the traditional orthography readers indicating that traditional orthography is an important source of difficulty in beginning reading (5).

   Pupils learning with i.t.a. achieved significantly higher scores on those types of reading tests in which the lower order decoding skills have a prominent role in solution, e.g., where context clues are not available. The greater consistency of i.t.a. appears to produce superior attainments in decoding print into speech and that therefore the traditional orthography seriously frustrates children's attempts to translate print-signals into their own English language.

2. pupils can effectively transfer their training in i.t.a. reading to reading the traditional orthography.

3. pupils who first learned with i.t.a. read the traditional orthography with significantly greater accuracy and comprehension than pupils who have not used i.t.a. in the initial stages

Experimental work is also being conducted with reading disability cases who have failed to learn to read properly through the use of the traditional orthography (4, 6). One small experiment reported in part gives an indication of what can be accomplished through the use of i.t.a. with remedial pupils (4, 6). These children were divided into groups of high and low intelligence and received special reading lessons from an experienced remedial teacher trained in i.t.a methods. A very popular infants' school reading series printed in i.t.a. was used for the remedial lessons and progress in the new medium was extremely rapid. There was a rapid growth of enthusiasm and confidence and after only 16 hours of remedial instruction these backward children had attained fluency in i.t.a. material equivalent in difficulty to that attempted by most children of their own age. Confidence and oral expression improved and some behavioral difficulties disappeared. There appeared to be almost no confusion through using i.t.a. for remedial work and then returning to traditional orthography for other classroom activities. Gains on reading tests were significantly greater than for control groups who were given remedial instruction in traditional orthography. In the ninth week of instruction the experimental children were given books in traditional orthography and they experienced little difficulty in making the transition (4, 6). Additional and more extensive experimentation is now under way (5).

Procedures

A. Arrangements were made with Mr. John Downing, Reading Research Officer at the University of London Institute of Education and Director of the Initial Teaching Alphabet (i.t.a.) Project for the projected investigation of i.t.a. methods and materials employed with reading disability cases in England.

B. This investigation was made in the month of September, 1964.

C. Materials were evaluated according to criteria established by the investigator as follows:

1. Can the i.t.a. remedial materials used with remedial cases in England be used with remedial cases at the San Jose State College Reading Clinic in their present form?

2. If materials cannot be used in their present form, what changes have to be made relative to language, format and concepts?

3. Would use of these materials be economical or would conversion of materials written in the traditional orthography in the United States be more feasible?

4. Methods of i.t.a. remediation will be observed and recorded and answers to the following specific questions will be sought:

   a) Are pupils selected for i.t.a. remediation according to criteria used commonly in the United States?

   b) Does remedial technique with i.t.a. differ significantly from technique with traditional orthography?

      1) Individual or group methods
      2) Phonetic or whole word approaches
      3) The function of diagnosis in i.t.a. remediation
      4) Use of supplementary materials
      5) Extent of teacher training

5. Judgements will be made as to the feasibility of the use of i.t.a materials at the San Jose State College Reading Clinic.

Findings

Initial Teaching Alphabet Materials:

For purposes of this investigation the following specific procedures were employed:

1. i.t.a. materials were examined in schools in Liverpool, Manchester, and Smethwick, England. These schools were conducting remedial programs in which i.t.a. materials were in use.

2. i.t.a. materials were examined at the Pitman Publishing Corporation in London. This is the major source of most i.t.a. material in England in i.t.a. programs of any kind at the present time.

3. Other i.t.a. materials were examined at the London Institute of Education.

4. In examining i.t.a. material observations were made relating to:
   a) quality of material
   b) book format
   c) concepts employed
   d) use of language

Results:

1. Examination indicated that format and quality of i.t.a. materials, books for the most part, are comparable to that found in classrooms in California and presumably in most other sections of the United States. The materials are durable, print is adequate and picture quality most satisfactory.

2. In the use of language some word examples were found which could lead to confusion if read by a pupil in the United States. Some of these are listed below with the American counterpart:

England	United States
Sledges	Sleds
Leed	Leash
Lorry	Truck
Refueler	Tank Truck
Canoe	Kayak

Examples of these variations occur infrequently in any given book; two or three times at most. Rejection of any of this material for use in the United States is not justifiable on the basis of high frequency of this type of exception.

3. Materials which employed phraseology strange to pupils in the United States were again few in number. Examples are listed below:

England	United States
"looking after"	taking care of
"going in a procession"	marching in a parade
"taking tea at 4 o'clock"	drinking tea

Again these exceptions do not occur frequently and would not justify rejection of this material for use in the United States.

4. Several examples were found in which a word was written in the i.t.a. form so as to have a pronunciation somewhat different than that commonly heard in the United States, e.g., 'been' pronounced b ē n
   'again' pronounced a g ā n

Examples of this type occurred infrequently.

5. i.t.a. materials, not published in book form, word flash cards, alphabet cards and similar skill building paraphernalia are not produced in great variety at present in England. All available material, based on the above listed criteria, is perfectly acceptable by American standards.

6. i.t.a. remedial materials are identical to those used in the regular i.t.a. classrooms.

In discussions with responsible personnel it became apparent that varied materials with which to conduct an effective remedial i.t.a. program are limited. The shortage is felt in two categories:

a) Graded i.t.a. materials which presumably enable remedial *pupils to make an easier transition from i.t.a. to* traditional orthography

b) Materials of high interest level for older remedial pupils

While conscious of the shortage of this material, it is apparent that a solution to this difficulty does not lie in the immediate future for two reasons:

a) A lack of willingness on the part of English publishers to commit themselves to i.t.a. publication either because of its newness or because of an economic stake in materials printed in traditional orthography

b) Lack of skilled writers who are willing to devote time to projects of this type

7. Comprehensive reading manuals which traditionally accompany reading series in the United States are lacking in England. While some attempts have been made to fulfill this need, nothing exists in England equivalent to the standard reading series manual found in the United States.

8. i.t.a. typewriters are in production but their use is not widespread. Use of these machines would help to alleviate i.t.a. material shortages.

Conclusions:

With respect to the questions concerning i.t.a. materials, the following conclusions based on the investigation are in order:

1. Any i.t.a. materials available in England for use in remedial programs could be utilized for remedial purposes at the San Jose State College Reading Clinic in their present form. Only very minor modifications would be necessary and these would be infrequent.

2. Materials other than those available in England would have to be employed in any effective i.t.a. remedial program. This would include high interest, transitional, skill building and other supplementary materials.

Selection of Pupils for i.t.a. Remediation:

i.t.a. remedial clinical arrangements in which a teacher works individually with a pupil are practically non-existent in England at this time. Where clinics do exist staffing is by psychologists and medical personnel who utilize the traditional orthography for remediation. The remedial reading work in England, where i.t.a. is used as the medium of instruction, is broadly defined and is carried out in a variety of contexts and for the most part with groups rather than with individuals.

To date there are several areas in England in which this type of work is conducted; Liverpool, Manchester, Walshall, Smethwick and Dundee, Scotland. In the areas of Liverpool, Birmingham and Smethwick where the Investigator made direct observations it is apparent that i.t.a. is being used remedially where historically there have been relatively large numbers of pupils who fail to learn to read with traditional orthography. Thus in Liverpool i.t.a. is used in slum clearance areas at the Junior School level for children of ages 7-11. Approximately 70 percent of the pupils who are exposed to formal reading instruction using traditional orthography at the Infant School Level for ages 5-7 enter the Junior School as reading failures.

Another area in which i.t.a. is being used "remedially" is in the E. S. N. Schools (Educationally Sub-Normal) in Manchester where English educational authorities feel that the new medium may be useful for children in the I.Q. range 50-70. These children, as in the United States, present many problems, not the least of which is learning to read.

In recent years there have been a number of children of Indian families (Punjabi and Pakistani), who do not speak English at home, settling in the Birmingham area. i.t.a. has been used experimentally with some of these children, most of whom are attending a Secondary Modern School, a common type of secondary school whose graduates by and large do not attend English universities. i.t.a. has also been used with pupils on occasion from the Northern European, Mediterranean and African areas. While in England many pupils are selected for remedial reading training on the basis of testing and/or teacher judgement in the traditional reading program, the same procedures do not hold true with respect to i.t.a. remedial classes. The i.t.a. medium is used for remedial purposes primarily where school population reading performance has been poor and is used indiscriminately i.e., pupils are not screened out on the basis of individual testing for selection for this type of training. Some of the i.t.a. remedial practices represent an attempt to explore possibilities rather than establish closely controlled experimental designs. Some of the work in Liverpool, with a very small sample, however, falls in this latter category. Reporting from other areas engaged in remedial i.t.a. is, for the most part, however, incomplete and subjective in character.

Remedial Techniques with i.t.a.:

In order to establish whether remedial techniques with i.t.a. differ significantly from techniques with traditional orthography the investigator followed these procedures:

1. Observed classroom operations in Liverpool, Birmingham and Smethwick.

2. Spoke to several authorities, including coordinators and headmasters, who were directly in charge of i.t.a. remedial work in these cities.

3. Consulted teachers who were teaching in this program.

4. Read available reports forwarded to the London Institute of Education.

At the time this investigation was made, very few reports by anyone engaged in i.t.a. remedial work were available at the London Institute of Education or elsewhere. Only one seemed to indicate that there had been a serious attempt to establish some kind of experimental controls. Authors engaged in very subjective reporting indicating a lack of experience in this type of procedure. Again, with one exception no report could be considered comprehensive. Reports were not available for distribution or duplication at the time the investigation was made although the i.t.a. remedial coordinator was in the process of drawing data together for this purpose.

In each report available to the investigator, the writer stated that there were unanticipated factors which interfered with bringing experimental i.t.a. work to a completely successful conclusion. Population of the very small samples used was not stable, frequently moving from the community in which the i.t.a. activity was being conducted. The respective designs of these studies were thereby altered affecting, no doubt, the results.

Probably the most thorough work to date has been accomplished in Liverpool. Twenty-eight students were used in the sample, 14 experimental and 14 control, based on "reading attainment and emotional maturity." One teacher taught two i.t.a. experimental groups and two control groups 35 minutes for four days a week. Children returned to regular classroom routines for the balance of the school day. Carefully planned verbal, visual and aural skills were offered to all for the first four hours of instruction. The teacher utilized the following with all four groups:

a) discussing daily events
b) visual discrimination exercises
c) sequence thinking with picture forms
d) auditory activities
e) vowel, consonant or i.t.a. symbol instruction

The i.t.a. groups had experiences in which they built words with i.t.a. characters, matched pictures with words and sentences and read in a set of i.t.a. readers. Students using the traditional orthography had comparable experience which included phonics, structural analysis, matching exercises, sight word development, and reading in i.t.a. series.

Results reported in this study indicated that:

1. i.t.a. groups were independent and better able to synthesize symbols when difficult words were encountered.
2. i.t.a. groups made fewer reversals.
3. i.t.a. groups were not affected markedly by broken attendance.
4. There was much blocking in the traditional orthography group when phonic generalizations did not handle exceptions.

After 20 hours of instruction the Schonell Word Recognition Test was administered and i.t.a. pupils made significantly greater gains.

Additional conclusions of this report indicated that:

1. i.t.a. children, for the most part, could keep pace with the equivalent control group after transition.

2. The dual learning experience for i.t.a. pupils was not a problem.

3. All children in the experimental i.t.a. groups made the transition to traditional orthography within seventeen hours of instruction.

4. i.t.a. groups had slightly better comprehension in traditional orthography. This, however, was accompanied by much word reading and poor expression.

5. i.t.a. pupils experienced an emotional uplift.

6. There was little transfer of positive attitudes generated in the i.t.a. reading period to other school subjects.

7. There was some truancy in i.t.a. groups after fluency in i.t.a. was achieved.

Individual or Group Methods for i.t.a. Remediation:

At no time in observing current remedial work in i.t.a. did the investigator witness anything resembling grouping procedures within a classroom for instructional purposes. Neither educational authorities nor teachers involved in remedial instruction indicated that grouping procedures were used. Available reports either did not discuss or indicated that grouping procedures were not practiced in this program. Available evidence indicated that classes were taught as a whole and children were then allowed to read any available material they could handle which was printed in the i.t.a. medium. If a child progressed more rapidly than his classmates he was allowed to proceed to more advanced i.t.a. material and to make the transition to traditional orthography when he was ready. Occasionally pupils might work in pairs and would listen to each other read. Classes generally had from 25-35 pupils, i.e., they were not smaller than the typical regular classroom undergoing instruction in traditional orthography.

Phonetic or Whole Word Approaches:

A method of instruction specifically designed for i.t.a. remediation has not been formulated in England. The prevailing opinion is that it would be desirable but that as yet they have only minimal experience with the new medium in the context of remedial work.

The written directions of the London Institute of Education to those involved in experimental work with both i.t.a. and traditional orthography groups are that "both in the i.t.a. class and in the control classes each child may be allowed to progress at his own individual rate." No other stipulations as to method are set forth.

In classroom work teachers usually begin instruction with the introduction of the new symbols of i.t.a., either those that will be encountered in the first i.t.a. reader or miscellaneous i.t.a. symbols which are new and, therefore, it is felt stimulating for the remedial pupils. When a sufficient number of symbols with their accompanying sounds have been learned the pupils begin the i.t.a. reading series. These procedures are varied since in some classes the teacher may begin by introducing sight words printed in i.t.a. These approaches are followed usually by drill exercises stressing sound of vowels and consonants.

Reported evidence and observation indicate that:

1. Either symbols or sight words may be introduced at the beginning of i.t.a. remedial instruction.

2. This is followed by reading in i.t.a. readers accompanied by drill on vowels and consonants of the i.t.a. alphabet.

3. Children then proceed at their own rate in available i.t.a. books.

4. On the average, the introduction of the i.t.a. alphabet is completed in seven weeks.

5. Children in the remedial classes do not appear to be confused by their previous exposure to traditional orthography. Apparently some previous learning is helpful although some teachers claimed that pupils in the E. S. N. (Educationally Sub-Normal) schools were confused by previous exposure to traditional orthography.

6. Teachers find that it is not advisable to allow remedial pupils to transfer to traditional orthography until pupils are absolutely fluent readers in i.t.a.

7. No specific reading level or time has been designated as appropriate for transition to traditional orthography. Apparently this is determined by teacher judgement. At the time of the investigation most children had not made the transition to traditional orthography. A few had made it successfully.

8. While published data are as yet unavailable, evidence suggests that the success of i.t.a. with remedial pupils is varied. Some pupils do very well and make the transition without difficulty. Others have more difficulty and still more do not succeed at all.

9. Remedial pupils who are unable to blend sounds experience a great deal of difficulty with this medium, pointing out the need for intense auditory work.

10. Written work for i.t.a. remedial classes is superior to written work in traditional orthography remedial classes.

The Function of Diagnosis in i.t.a. Remediation:

To date diagnosis of specific reading difficulties is not standard procedure in i.t.a. remediation either before or during exposure to the new medium. Populations for remedial training are not selected on the basis of test batteries or comprehensive teacher evaluation. Rather, i.t.a. is used in schools where there has been a large percentage of reading failure.

Three tests have been used in the i.t.a. remedial program to measure performance to date:

a) the Schonell Graded Word Reading Test, which is a word recognition test

b) the Daniels and Diack Standard Test of Reading Skill, which is used to measure standards of reading attained

c) the Neale Analysis of Reading Ability Test, which is a test of comprehension, rate and accuracy

Analysis of reading patterns followed by new approaches to instruction is not used as a general approach in the i.t.a. remedial classes.

Use of Supplementary Materials:

Supplementary materials, referred to as 'apparatus' in England, are produced only in small quantities at present. They are similar to materials published in traditional orthography in the United States, e.g.:

a) auditory discrimination cards
b) large word flash cards
c) word-word matching cards
d) picture sentence matching cards

e) outline picture pads

f) cut-out picture sets

Since major support is given to the regular i.t.a. program, large quantities of supplementary materials are not found in i.t.a. remedial schools. More of this material is expected in the future.

Teachers are encouraged to use these materials in a manner similar to that used in teaching traditional orthography since special i.t.a. procedures have not as yet been developed.

Extent of Teacher Training:

In general, distinct courses in the methodology of reading instruction in England do not constitute a significant part of teacher training. In discussion with English educational authorities it was apparent that the norm roughly consisted of two or three hours of training in techniques of teaching reading. Some institutions do not give this much training and a few only a little more. In comparison with the emphasis given to reading in teacher training institutions in the United States, the preparation for the teaching of reading is meager indeed. This is bound to be reflected in any i.t.a. instruction as well as in instruction with traditional orthography.

Teachers involved in teaching with i.t.a. ordinarily attend a two-day workshop designed to orient them to problems connected with the use of the new medium. The workshops are given by persons who are most familiar with i.t.a. and augment the limited background of the typical teacher. Workshops last for two days and in general follow the organization mentioned below. Workshops follow the same pattern for teachers both in the regular i.t.a. and remedial programs.

1. Introduction to i.t.a. History background and theory through the use of audio-visual media. Motion pictures, slides, etc.

2. Tape recorders and special teacher training packets are used for developing facility in using proper i.t.a. symbols for the corresponding English phoneme.

3. Presentation of methods employed to teach i.t.a. to pupils for both reading and writing.

4. Oral presentation of words for which teachers must write the appropriate i.t.a. counterpart.

5. Administrative aspect of i.t.a. and the cost of the program. Use of books and their proper sequence. How parents are to be introduced to i.t.a.

6. Emphasis on i.t.a. spelling rules. Emphasis on keeping i.t.a forms close to traditional orthography forms. Work on transliterating traditional orthography passages to i.t.a.

Classroom visits by the investigator in i.t.a. remedial classes revealed some of the following information:

1. There was a tendency for the children to vocalize while reading to themselves.

2. Pupils tended to be "word callers" when reading to the investigator, seemingly lacking understanding of what was read.

3. Motivation and comprehension activities seemed almost non-existent.

i.t.a and the San Jose State Reading Clinic:

Any i.t.a. materials and/or procedures currently in use with pupils in England could be used at the San Jose State Reading Clinic. This could not, however, be accomplished without some modification of current practice.

The clinic draws from schools in the area adjacent to the college. Pupils receive instruction and then return to their regular schoolrooms. If the i.t.a. was used as a medium of remedial instruction, some adjustments would be necessary a t the local school level in terms of follow-through reinforcement activities. Appropriate materials would have to be available and teachers would have to be familiar with i.t.a. These conditions do not exist at present. The investigator hopes to establish some articulation between local schools and the college in the near future.

Conclusions and Implications

i.t.a. Materials

1. i.t.a. materials available in England for use in remedial programs could be utilized for remedial purposes at the San Jose State College Reading Clinic, and presumably in any other clinic in the United States, in their present form with only very minor modifications in a few isolated books.

2. An effective remedial program should include materials not yet available in England; high interest, transitional, skill building, supplementary materials and i.t.a. reading manuals.

3. Use of i.t.a. typewriters could alleviate shortages of necessary materials.

Selection of Pupils for Remediation

1. Groups of pupils, for the most part, rather than individuals are selected for i.t.a. remediation.

2. i.t.a. is used for remedial purposes in schools where there has been a history of reading failure with traditional orthography.

3. In several areas attempts have been made to establish some kind of experimental design using i.t.a. for remediation. Pupils were selected for experimental and control groups on the basis of reading performance tests.

Remedial Techniques with i.t.a.

1. Intra-class grouping for purposes of remedial instruction with i.t.a. is not practiced. Pupils occasionally worked in teams in which they read to each other.

2. Pupils were encouraged to proceed at their own pace and to make the transition to traditional orthography as quickly as they could.

3. Many i.t.a. remedial classes are no smaller than classes receiving instruction in traditional orthography.

4. Special remedial techniques with i.t.a. have not been formulated.

Phonetic or Whole Word Approaches

1. As practiced, either the i.t.a. symbols are introduced first or sight words written in i.t.a.

2. Sounds of i.t.a. vowels and consonants are then stressed and children read in i.t.a. readers.

3. Pupils proceed at their own rate in available i.t.a. books.

4. Previous exposure to traditional orthography is helpful to remedial pupils.

5. Pupils transfer to traditional orthography only after achieving fluency in i.t.a. Only a few remedial pupils have made the transition to date.

6. Evidence indicates that success with i.t.a. for remedial pupils varies from failure to success. Lack of ability to blend sounds is a major source of difficulty for some remedial pupils

7. Written work for i.t.a. remedial classes is superior to written work in traditional orthography remedial classes.

The Function of Diagnosis in i.t.a. Remediation

1. Diagnosis of specific reading abilities followed by modification of instruction is not a standard pattern in the i.t.a. remedial classes either before or during instruction with the new medium.

Use of Supplementary Materials

1. Supplementary materials printed in i.t.a., such as flash cards, are similar to materials published in the United States.

2. No special techniques, as yet, have been used with these materials.

Extent of Teacher Training

1. Training in techniques for teaching reading, for English teachers, is meager in comparison with training received by teachers in the United States.

2. i.t.a. remedial teachers have a two-day workshop in which i.t.a. is learned. This augments the reading background.

At the present time i.t.a. remedial work is very much in the experimental/exploratory stage. Tightly controlled and meaningful experimentation upon which operating generalizations may be based has not, by and large, been conducted to date. Financial support has been meager. The few experiments have used very small samples. Populations have been fluid. Work was sometimes rushed because students were transferring to traditional orthography schools when there was no provision for their needs. Pupils were removed from schools by authorities for one reason or another and sufficient materials for a well rounded i.t.a. program were not always available. In schools where i.t.a. has been used with larger

samples, sufficient data has not been gathered for meaningful conclusions.

In spite of this it is apparent that i.t.a. has had beneficial effects with some children in areas where there has been a history of reading failure. Investigations in depth which tell us: a) precisely what all those benefits are beyond word recognition, b) whether they are permanent, or c) what problems can be anticipated after transition to traditional orthography, are lacking.

It would seem that additional remedial work with i.t.a. should be conducted in the United States employing:

1. diverse materials
2. teachers who have broader reading and remedial backgrounds
3. experimental designs which are well controlled, using diverse populations

In this way we can capitalize on what is known and build greater understanding of this new reading medium.

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